

# Supplementary Material

<b>S1 Principal Component Analysis for Feature Extraction</b>	<b>1</b>
<b>S2 Multinomial Logistic Regression Tables</b>	<b>9</b>
S2.1 Canada .....	9
S2.2 Quebec.....	13
<b>S3 Robustness Checks</b>	<b>16</b>
S3.1 Biplots and Issue Attitudes .....	16
S3.2 Multinomial Regressions of Vote Choice on Alternative Measures.....	20
S3.3 Comparing the Precision of Main Measures and Alternative Measures of the Ide- ological and Ethnocultural Dimensions.....	22
S3.4 Multinomial Regressions of Vote Choice on Principal Components and Alterna- tive Measures .....	23
S3.5 Multinomial Regressions with Controls for Region .....	28

## **S1 Principal Component Analysis for Feature Extraction**

*Principal components analysis* (PCA) is an unsupervised tool that is used for reducing dimensionality before using supervised techniques such as regression analysis (James et al., 2013; Hastie et al., 2009). PCA involves taking the linear transformation of an original set of correlated variables or features to produce a smaller set of uncorrelated features (called principal components) that maximally account for the total variance of the original, observed values. The first low-dimensional representation of the original data ( $X_1, \dots, X_p$ ), or first principal component ( $Z_1$ ), has the highest variance among all linear combinations of the original features. Each subsequent component is the linear combination of  $X_1, \dots, X_p$  that has the highest variance among all linear combinations *and* that is uncorrelated with any prior principal components

(i.e.,  $Z_2$  must be orthogonal to  $Z_1$ ,  $Z_3$  must be orthogonal to both  $Z_1$  and  $Z_2$ , and so on). Hence

the score of an observation on a given principal component is obtained by linear combination, i.e. the addition of its score on each feature multiplied by the feature's loading (i.e. covariance between the feature and the component).

One of the benefits of PCA is that by reducing the data to a smaller number of orthogonal features that explain a good amount—but not all—of the variance in the original data, the “signal” (rather than the noise) is concentrated in the first couple of principal components (James et al., 2013: 389). As such, PCA is known for producing “*less noisy* results” (James et al., 2013: 389). Because of these properties, we use PCA to visualize our results and to extract latent features (principal components) summarizing group-based affect that we will use in our regressions modelling vote choice.

Another benefit of PCA is it does not rely on the researcher's assumptions about the underlying structure of the data. This allows PCA to avoid the criticism that researchers' decisions regarding modelling impact the results, a criticism that has been levelled against Factor Analysis (see Cochrane, 2015: 85).

Tables S2 and S1 show the variance explained by each principal component. The components are ordered by decreasing importance. The ideological dimension is always the first component and explains the most variance ( around 20 per cent) in both Quebec and Canada outside Quebec for all elections. While the ethnocultural dimension is not always the second component in terms of importance (in 1993 and 1997, it is the third component in Quebec; in 2008, 2011 and 2019 it is the third component in Quebec), it always explain at least 10 per cent of the variance, and its difference with the preceding components is small.

**Table S1:** Quebec: Proportion of Variance Explained by Principal Components

	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8
1993	0.18	0.18	0.14	0.12	0.09	0.08	0.07	0.06
1997	0.20	0.18	0.13	0.11	0.09	0.08	0.06	0.05
2006	0.23	0.14	0.14	0.11	0.09	0.08	0.07	0.05
2008	0.23	0.16	0.12	0.11	0.09	0.08	0.07	0.06
2011	0.22	0.14	0.14	0.12	0.09	0.08	0.06	0.06
2015	0.23	0.15	0.12	0.11	0.08	0.08	0.07	0.06
2019	0.24	0.16	0.13	0.10	0.08	0.06	0.06	0.05

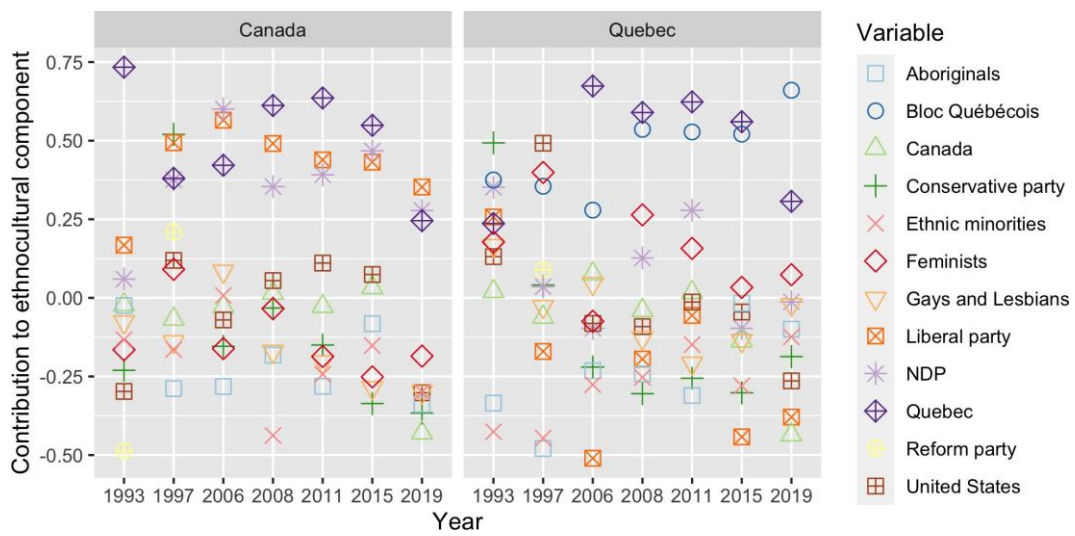
**Table S2:** Canada: Proportion of Variance Explained by Principal Components

	PC1	PC2	PC3	PC4	PC5	PC6	PC7	PC8
1993	0.17	0.16	0.13	0.11	0.10	0.08	0.08	0.07
1997	0.18	0.15	0.12	0.11	0.10	0.08	0.08	0.07
2006	0.26	0.14	0.12	0.11	0.10	0.08	0.07	0.07
2008	0.22	0.15	0.12	0.11	0.11	0.09	0.08	0.06
2011	0.25	0.16	0.12	0.10	0.09	0.09	0.07	0.06
2015	0.25	0.16	0.13	0.10	0.09	0.08	0.07	0.06
2019	0.31	0.19	0.11	0.08	0.07	0.06	0.06	0.05

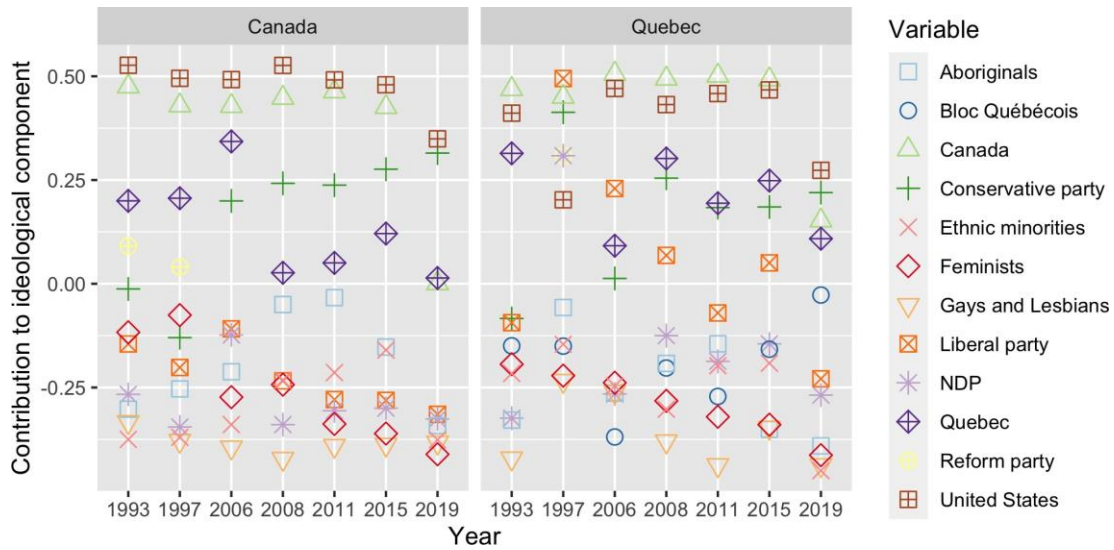
Figure S1 and S2 display each feeling thermometer's contribution to the principal components. Since we run a different PCA for each year and region (Quebec, Rest of Canada), the contribution or loading of each variable will also vary across years and regions. This reflects the fluid nature of ideational content (Cochrane, 2015: 117). As Cochrane puts it in his analysis of the Left-Right dimension: "what matters, from the standpoint of Left/Right, is whether ideas are more or less similar in terms of their overlapping and crisscrossing connections to other ideas, rather than simply their direct associations with each other" (Cochrane, 2015: 118).

Moreover, since the categories on the outcome variable, vote choice, change across years and regions (as parties change), we did not have the choice to proceed this way. Note that in 1993 and 1997, the variable *Conservative Party* has the same sign as the variables that measure feelings toward groups associated with the Left because the Progressive Conservative Party was a progressive party on social issues. Note also that the feeling thermometer for Quebec was not measured on Quebec respondents in 1997, hence it is absent from the PCA analysis for the 1997 Quebec sample.

**Figure S1:** Contribution of each variable to the ethnocultural component by year and region



**Figure S2:** Contribution of each variable to the ideological component by year and region



Graphically displaying the results of the PCA allows us to assess the relationship between the variables used to construct the principal components by plotting the variables as vectors (the arrows in Figure S3 and Figure S4) on a two-dimensional map, where each dimension is a principal component derived from the PCA. The angle between the vectors (the arrows) indicates the degree of correlation between the variables: an angle of  $90^\circ$  indicates no correlation, an angle smaller than  $90^\circ$  indicates a positive correlation, and an angle greater than  $90^\circ$  indicates a negative correlation between two variables. The length of a vector indicates how much a variable contributes to the principal components, with a longer vector indicating that a variable contributes more to a given principal component.

There are theoretically meaningful differences between Quebec and the rest of Canada in the relationships between the variables that make up the dimensions. First, warm feelings toward the Liberals are associated with warm feelings toward Quebec in Canada outside of Quebec, but not in Quebec. Outside of Quebec, this is shown by the vector representing the variable measuring feelings toward the Liberal Party which points to the pro-Quebec pole of the ethnocultural dimension (plotted along the  $y$ -axis). In Quebec, the vectors representing

variables measuring feelings toward both the Liberal and Conservative parties point toward the multiculturalist pole of the ethnocultural dimension.

**Figure S3:** PCA: Variable Plots for Canada Outside of Quebec

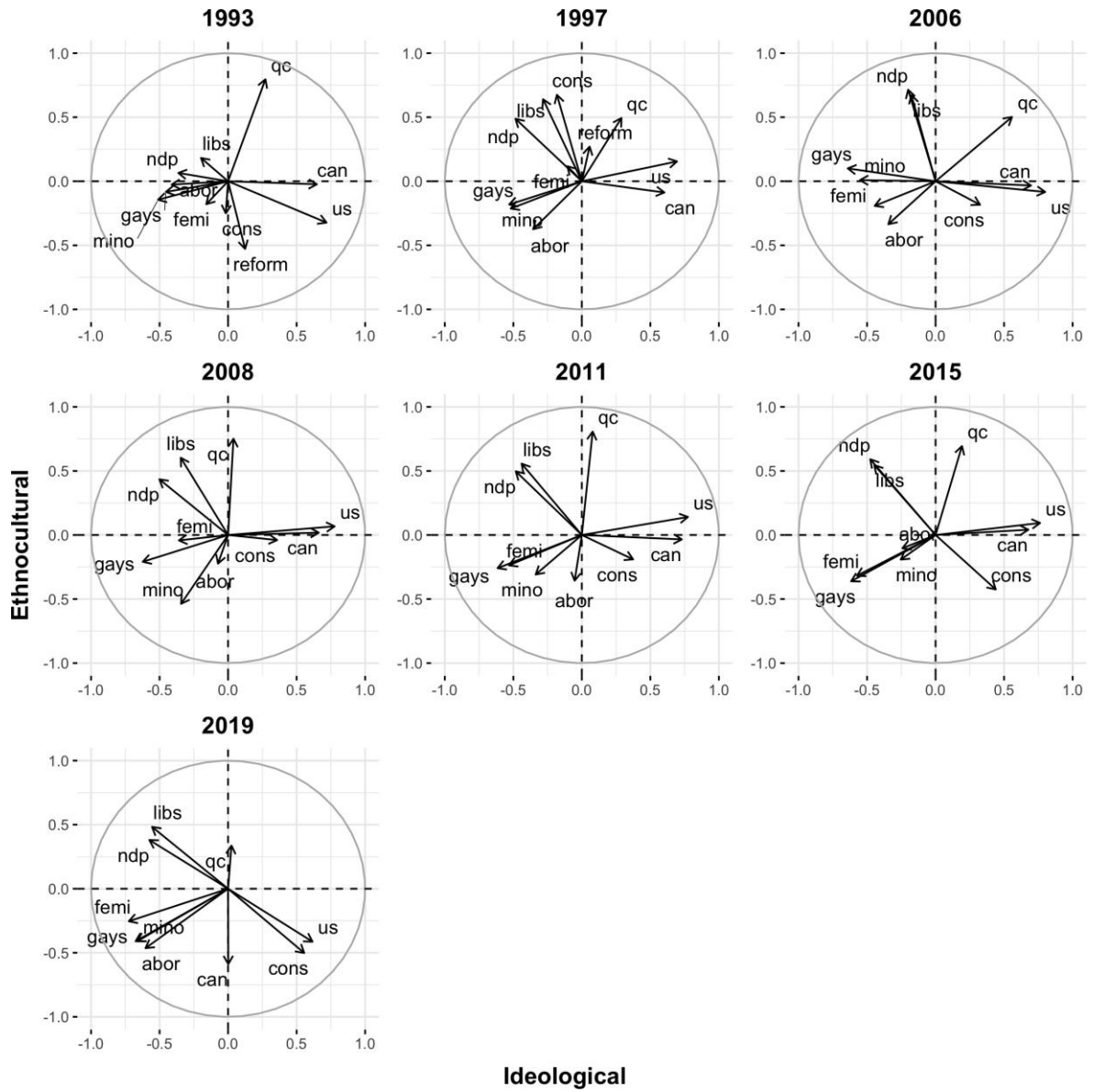
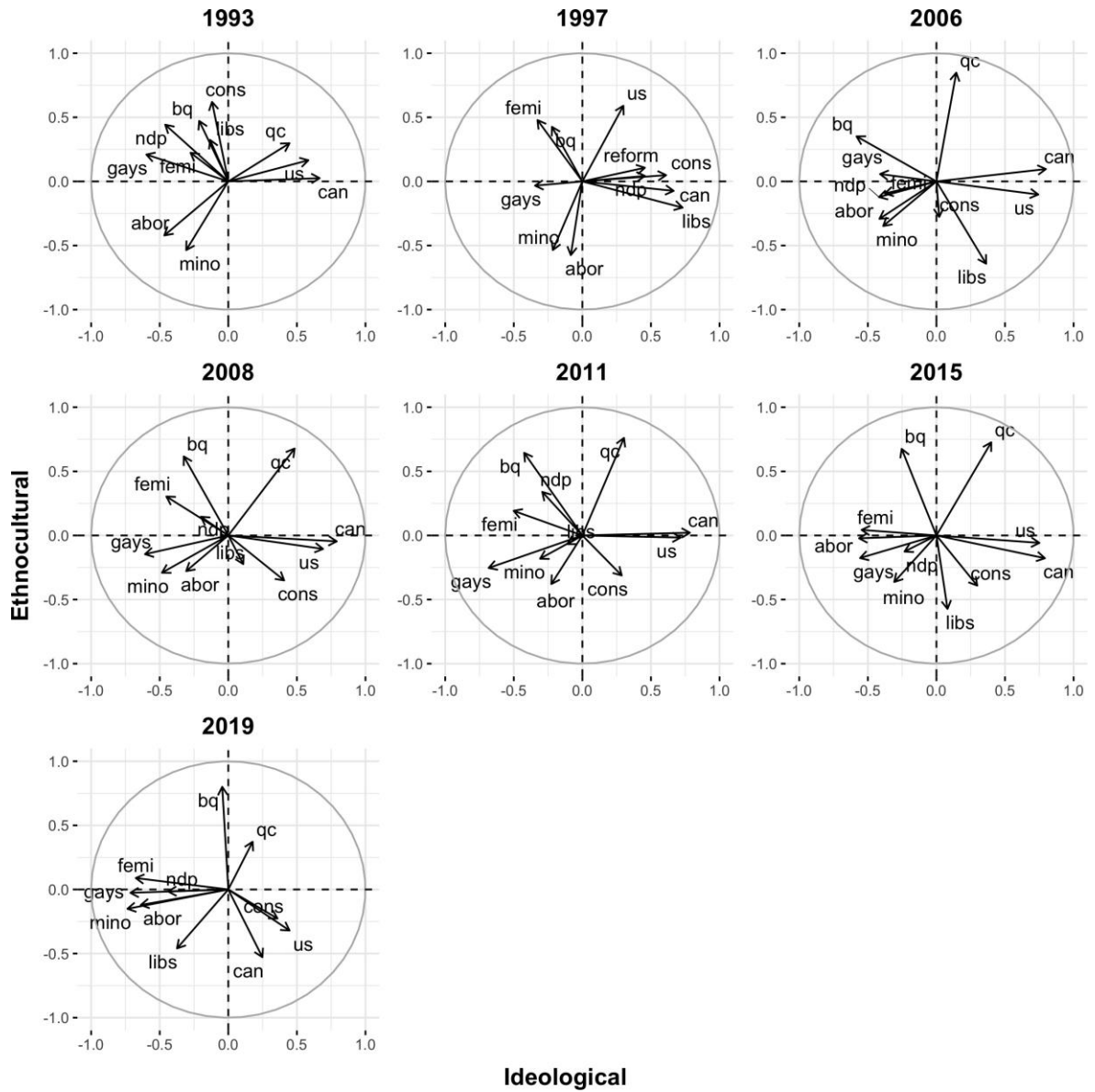




Figure S4: PCA: Variable Plots for Quebec



## S2 Multinomial Logistic Regression Tables

### S2.1 Canada

**Table S3:** Canada 1993: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>			
	Prog. Conservative	NDP	Reform
Ideological	0.254*** (0.0889)	-0.261** (0.111)	0.414*** (0.0778)
Ethnocultural	-0.343*** (0.0884)	-0.123 (0.109)	-0.752*** (0.0778)
Constant	0.151 (0.255)	-2.477*** (0.431)	0.251 (0.231)

N: 2021

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic  
Outcome reference level: Liberal Party. "None" and "other" are not included. Observations for Quebec are excluded.

**Table S4:** Canada 1997: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>			
	Prog. Conservative	NDP	Reform
Ideological	0.193** (0.0952)	-0.423*** (0.109)	0.496*** (0.0886)
Ethnocultural	-0.00470 (0.0711)	-0.128* (0.0769)	-0.278*** (0.0648)
Constant	1.297*** (0.317)	-1.757*** (0.429)	0.658** (0.319)
N: 1704			

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic Outcome reference level: Liberal Party. "None" and "other" are not included. Observations for Quebec are excluded.

**Table S5:** Canada 2006: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>			
	Conservative	NDP	Green
Ideological	0.776*** (0.131)	-0.160 (0.132)	-0.0378 (0.208)
Ethnocultural	-1.120*** (0.148)	-0.166 (0.150)	-0.518** (0.224)
Constant	3.734*** (0.576)	0.876 (0.614)	-0.882 (0.937)
N: 891			

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic Outcome reference level: Liberal Party. "None" and "other" are not included. Observations for Quebec are excluded.

**Table S6:** Canada 2008: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>			
	Conservative	NDP	Green
Ideological	0.942*** (0.119)	0.0773 (0.115)	0.292* (0.154)
Ethnocultural	-0.799*** (0.111)	-0.190* (0.113)	-0.517*** (0.149)
Constant	3.498*** (0.456)	1.343*** (0.478)	-0.102 (0.662)

N: 1384

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic Outcome reference level: Liberal Party. "None" and "other" are not included. Observations for Quebec are excluded.

**Table S7:** Canada 2011: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>		
	Conservative	NDP
Ideological	1.015*** (0.105)	0.0477 (0.0983)
Ethnocultural	-0.753*** (0.0985)	-0.148 (0.0954)
Constant	3.106*** (0.430)	0.694 (0.422)

N: 1993

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic Outcome

reference level: Liberal Party. "None" and "other" are not included. Observations for Quebec are excluded.



**Table S8:** Canada 2015: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>			
	Conservative	NDP	Green
Ideological	1.232*** (0.0704)	-0.0489 (0.0597)	0.423*** (0.103)
Ethnocultural	-1.157*** (0.0682)	0.00608 (0.0626)	-0.557*** (0.102)
Constant	0.101 (0.231)	-1.068*** (0.217)	-2.900*** (0.393)

N: 4438

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic Outcome reference level: Liberal Party. "None" and "other" are not included. Observations for Quebec are excluded.

**Table S9:** Canada 2019: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>			
	Conservative	NDP	Green
Ideological	1.901*** (0.0777)	0.0528 (0.0621)	0.506*** (0.0809)
Ethnocultural	-1.693*** (0.0655)	-0.216*** (0.0536)	-0.351*** (0.0696)
Constant	0.724*** (0.239)	0.297 (0.210)	-1.287*** (0.283)

N: 6876

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic Outcome

reference level: Liberal Party. "None" and "other" are not included. Observations for Quebec are excluded.



## S2.2 Quebec

**Table S10:** Quebec 1993: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>		
	Bloc	Prog. Conservative
Ideological	-0.495*** (0.150)	-0.0252 (0.184)
Ethnocultural	0.236* (0.138)	0.116 (0.174)
Constant	2.321*** (0.677)	-0.907 (0.888)

N: 712

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic  
Outcome reference level: Liberal Party. "None" and "other" are not included.

**Table S11:** Quebec 1997: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>			
	Bloc	Prog. Conservative	NDP
Ideological	-1.468*** (0.239)	-0.244 (0.204)	-0.507 (0.390)
Ethnocultural	0.574*** (0.199)	0.444*** (0.166)	0.500 (0.353)
Constant	2.185** (0.908)	-0.528 (0.806)	-2.546 (1.628)

N: 608

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic  
Outcome reference level: Liberal Party. "None" and "other" are not included.



**Table S12:** Quebec 2006: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>			
	Bloc	Conservative	NDP
Ideological	-1.309*** (0.382)	-0.418 (0.307)	-0.972** (0.436)
Ethnocultural	1.294*** (0.371)	0.634** (0.301)	0.772* (0.437)
Constant	1.746 (1.700)	0.445 (1.601)	0.463 (1.734)

N: 348

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic  
Outcome reference level: Liberal Party. "None" and "other" are not included.

**Table S13:** Quebec 2008: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>			
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*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic  
Outcome reference level: Liberal Party. "None" and "other" are not included.

	Bloc	Conservative	NDP	Green
Ideological	-0.858*** (0.234)	0.594*** (0.225)	-0.864*** (0.275)	-0.405 (0.435)
Ethnocultural	1.102*** (0.262)	-0.514** (0.222)	0.139 (0.260)	0.106 (0.438)
Constant	0.444 (1.090)	-2.303** (1.003)	-2.630** (1.188)	-18.27 (2,276)

N: 466

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Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic Outcome

**Table S14:** Quebec 2011: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>				
	Bloc	Conservative	NDP	Green
Ideological	-0.510*** (0.194)	0.541*** (0.202)	-0.199 (0.166)	-0.486 (0.523)
Ethnocultural	0.901*** (0.203)	-0.540*** (0.189)	0.299* (0.156)	-0.853 (0.529)
Constant	2.450*** (0.802)	0.660 (0.872)	2.155*** (0.720)	-1.113 (1.555)
N: 752				

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic Outcome reference level: Liberal Party. "None" and "other" are not included.

**Table S15:** Quebec 2015: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>				

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic Outcome reference level: Liberal Party. "None" and "other" are not included.

	Bloc	Conservative	NDP	Green
Ideological	-0.212** (0.100)	0.597*** (0.108)	-0.322*** (0.0849)	-0.296 (0.243)
Ethnocultural	0.361*** (0.112)	-0.670*** (0.116)	0.265*** (0.0921)	-0.467* (0.251)
Constant	0.0640 (0.661)	-1.117** (0.553)	-0.0204 (0.400)	-2.219** (1.040)

N: 1711

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Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholicOutcome

**Table S16:** Quebec 2019: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect

<i>Dependent variable:</i>				
	Bloc	Conservative	NDP	Green
Ideological	0.324*** (0.116)	0.706*** (0.137)	0.0716 (0.126)	0.191 (0.192)
Ethnocultural	1.615*** (0.156)	0.437** (0.172)	0.492*** (0.161)	1.086*** (0.235)
Constant	0.0673 (0.665)	-2.197*** (0.722)	-0.378 (0.662)	-3.372*** (1.281)

N: 1334

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: PID, french, income, female, age, non-European, university, catholic Outcome reference level: Liberal Party. "None" and "other" are not included.

## S3 Robustness Checks

### S3.1 Biplots and Issue Attitudes

To validate our interpretation of the PCA results (as ideological and ethnocultural affect), we projected issue attitudes onto the biplots (Figure S5 and Figure S6). Confirming our interpretation of the first principal component as ideological affect, we show that higher scores on ideological affect are associated with right-wing stances on social issues, including support for increasing spending on defence and fighting crime. We also show that higher scores on ethnocultural affect are associated with stronger support for Quebec sovereignty among voters in Quebec, or stronger support for Quebec's demands among voters in the rest of Canada.

In this section, we present graphs of the projection of relevant issue attitudes onto the bi-dimensional plots of our ideological and ethnocultural affect variables. As expected, favourable attitudes toward military spending ("def") and fighting crime ("crim") are correlated with higher scores on the ideological dimension, i.e. warmer feelings toward groups associated with the Right. On the ethnocultural dimension, favourable attitudes toward Quebec's demands in

Canada (“qc”) and support for Quebec sovereignty in Quebec (“qsov”) are correlated with warmer feelings toward groups associated with Quebec.<sup>i10</sup>

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<sup>10</sup>Particular survey items to measure attitudes on fighting crime change across time due to changes in the questionnaires. In 1993, the item is support for the statement “We must crack down on crime, even if it means people lose their rights.” From 1997 to 2008, the survey item used to measure attitudes on crime is support for tougher sentences for young offenders. From 2008 until 2015, the item is government spending targeted at fighting crime. In 2019, the item asked whether the respondent believes immigrants increase crime rates.

Figure S5: Canada: Biplot with Issue Attitudes

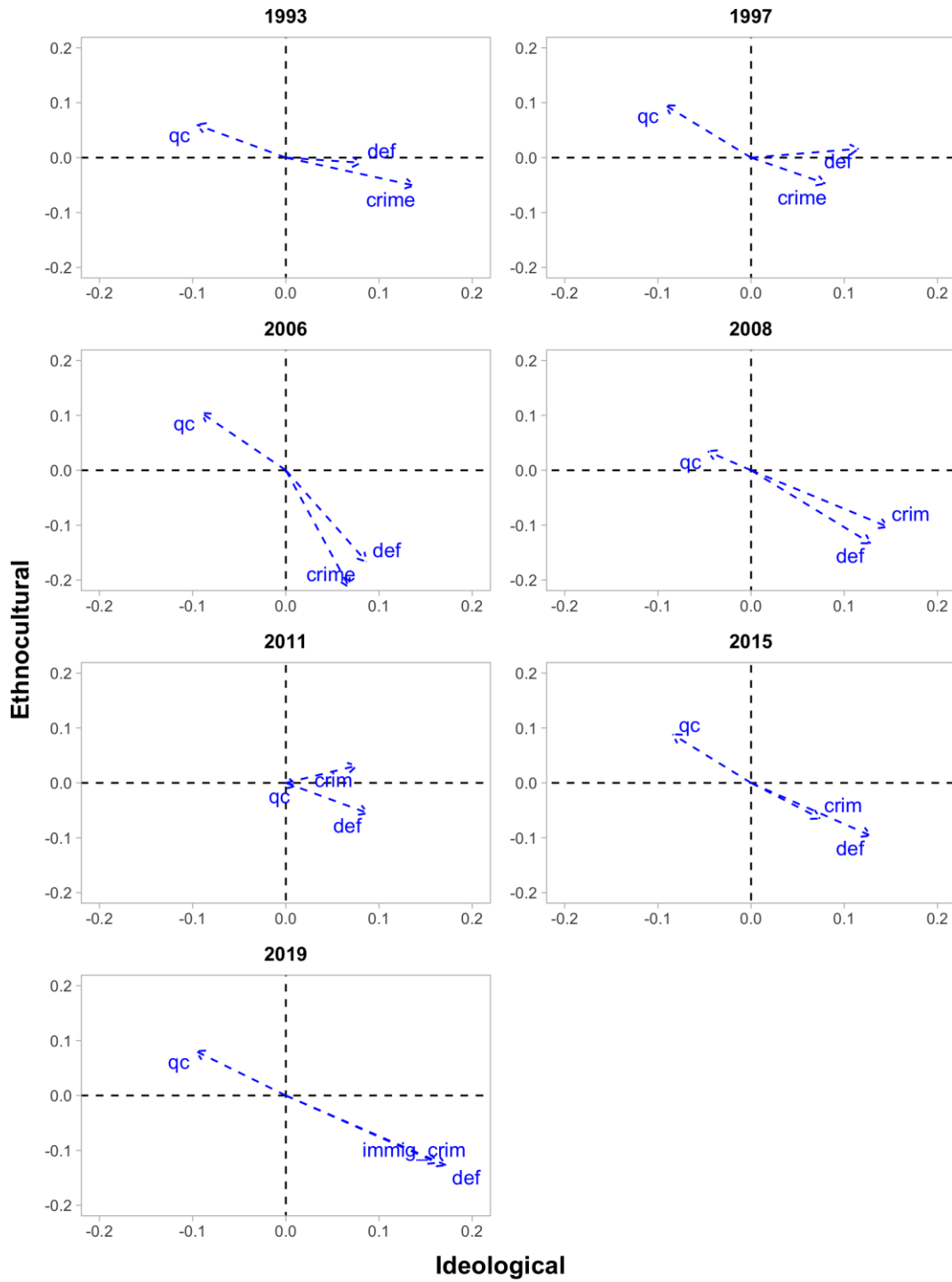
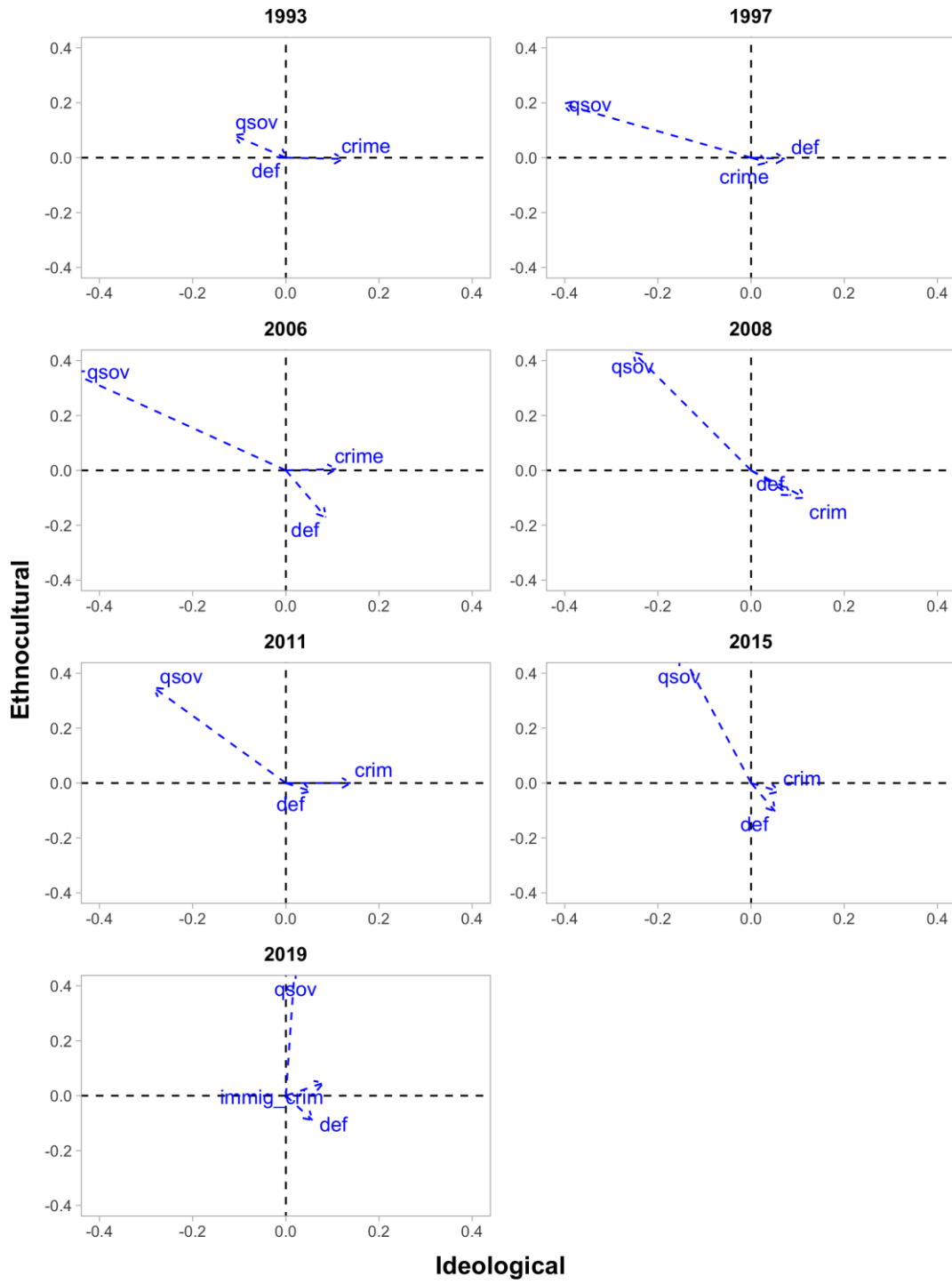


Figure S6: Quebec: Biplot with Issue Attitudes

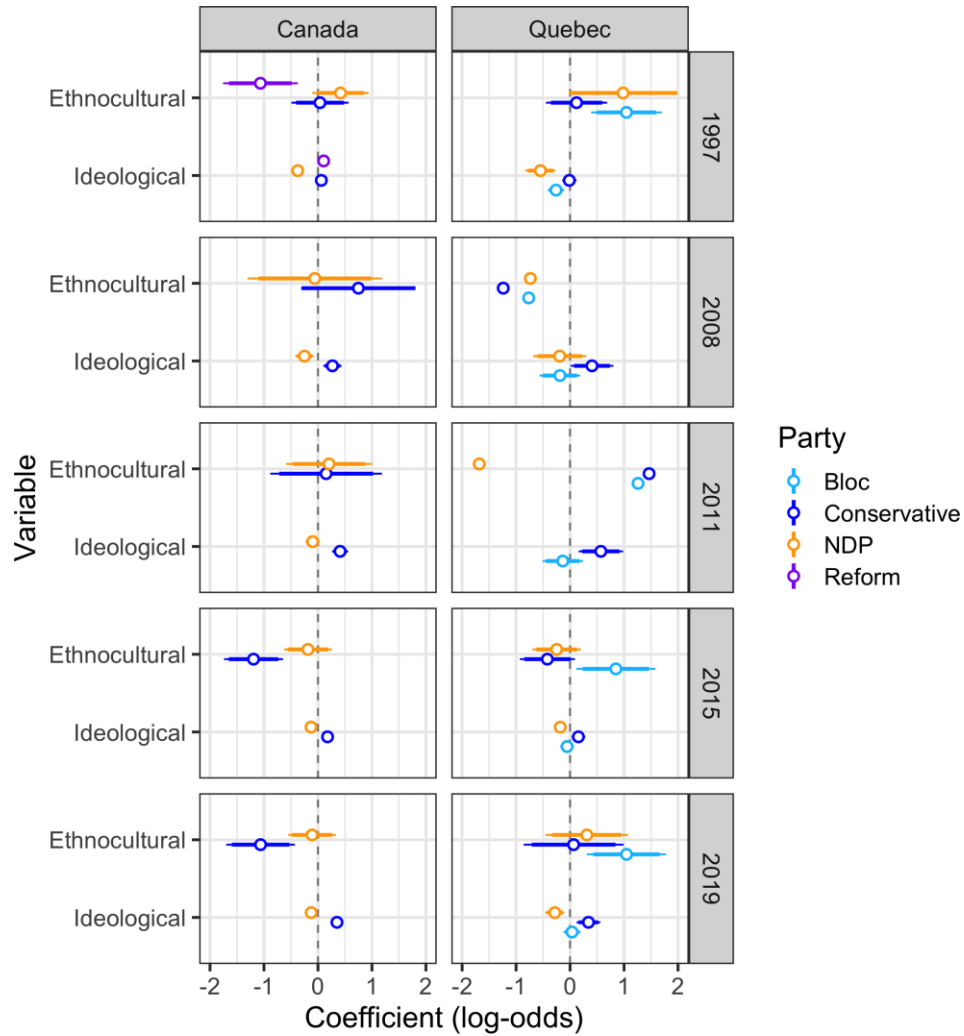




### **S3.2 Multinomial Regressions of Vote Choice on Alternative Measures**

In this section, we check whether our conclusions are robust to alternative measures of the ideological and ethnocultural dimensions. To do so, we use the traditional Left-Right scale and a survey item on the accommodation of Quebec's demands. These measures are consistent with the measures used by Johnston (Johnston, 2017). We ran the multinomial regression models with the alternative measures (Left-Right scale and the "do more for Quebec" item coded 1 when the respondent wants the federal government to do more for Quebec and 0 otherwise), the same controls as in the main analysis, and imputed data as we did in the main analysis. Some years were excluded due to missing survey items. Note that the iterative algorithms for multinomial regressions with alternative measures do not converge for almost all cases. Overall, the coefficients in Figure S7 are in the same direction than Figure 1. However, the standard errors are very large, sometimes too large for the confidence intervals to be plotted given the limits of the x-axis. Coefficients without confidence intervals should not be taken into consideration given their high uncertainty.

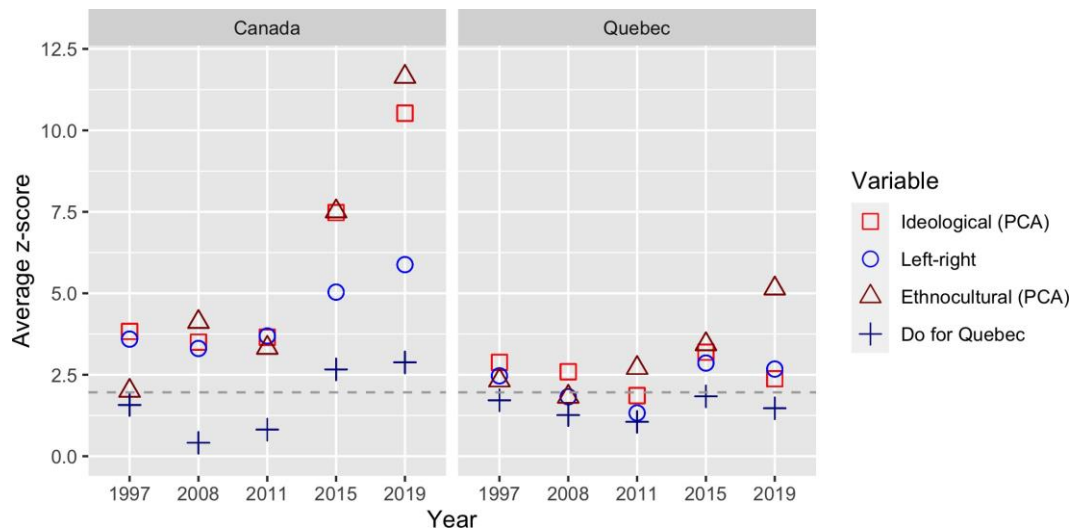
**Figure S7:** Coefficient Plot for the Multinomial Logistic Regression of Vote Choice on Left-Right scale and “do more for Quebec” item. The models include controls for: partisanship, age, income, gender, university education, non-European ethnicity, French-speaking, and Catholicism. The reference category for the outcome is the Liberal Party.



### S3.3 Comparing the Precision of Main Measures and Alternative Measures of the Ideological and Ethnocultural Dimensions

Figure S8 allows us to compare the z-scores for the regression coefficients on our PCA measures of the ideological and ethnocultural dimensions to z-scores for alternative measures. In order to obtain the same sample size for estimation as with our PCA measures, we used multiple imputation for missing values with alternative measures as well. In general, the z-scores for our PCA measures are higher, meaning that our measures are less noisy and thus capture better the relationship between vote choices and the ideological and ethnocultural dimensions. Moreover, our measures allow us to detect relationships that we would not be able to detect with alternative measures. Indeed, the z-scores for the latter often fall under 1.96, the standard threshold for statistical significance.

**Figure S8:** z-scores on regression coefficients for main measures and alternative measures of the ideological and ethnocultural dimensions by year and region. The dotted line indicates a z-score of 1.96.



### S3.4 Multinomial Regressions of Vote Choice on Principal Components and Alternative Measures

In this section, we run the same regression models as in the main analysis, but adding alternative measures (do more for Quebec and Left-Right self-placement) as controls. In order to obtain the same sample size for estimation as in the main analysis, we used multiple imputation for missing values with alternative measures as we did with the ideological and ethnocultural variables. The results show that the coefficients on the ideological and ethnocultural variables are robust to the inclusion of these controls.

#### S3.4.1 Canada

**Table S17:** Canada 1997: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Alternative Measures

<i>Dependent variable:</i>			
	Prog. Conservative	NDP	Reform
Ideological	0.189** (0.0955)	-0.339*** (0.111)	0.473*** (0.0894)
Ethnocultural	-0.0129 (0.0715)	-0.0963 (0.0796)	-0.276*** (0.0656)
Constant	0.897** (0.447)	0.0828 (0.528)	0.0169 (0.435)

N: 1704

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic

Outcome reference level: Liberal Party. "None" and "other" are not included. Observations for Quebec are excluded.

**Table S18:** Canada 2008: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Alternative Measures

<i>Dependent variable:</i>			
	Conservative	NDP	Green
Ideological	0.913*** (0.122)	0.126 (0.116)	0.316** (0.155)
Ethnocultural	-0.803*** (0.114)	-0.234** (0.114)	-0.551*** (0.151)
Constant	1.900*** (0.583)	2.505*** (0.584)	0.651 (0.793)

N:1384

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic

Outcome reference level: Liberal Party. "None" and "other" are not included.

Observations for Quebec are excluded.

**Table S19:** Canada 2011: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Alternative Measures

<i>Dependent variable:</i>		
	Conservative	NDP
Ideological	1.019*** (0.110)	0.0576 (0.0983)
Ethnocultural	-0.766*** (0.102)	-0.154 (0.0949)
Constant	0.579 (0.536)	0.840* (0.490)

N: 1993

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic

Outcome reference level: Liberal Party. "None" and "other" are not included.  
Observations for Quebec are excluded.

**Table S20:** Canada 2015: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Alternative Measures

<i>Dependent variable:</i>			
	Conservative	NDP	Green
Ideological	1.191*** (0.0712)	-0.0333 (0.0604)	0.385*** (0.105)
Ethnocultural	-1.122** (0.0689)	-0.00862 (0.0631)	-0.528*** (0.103)
Constant	-1.586*** (0.462)	-0.132 (0.282)	-3.290 (0)

N: 4438

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic

Outcome reference level: Liberal Party. "None" and "other" are not included.

Observations for Quebec are excluded.

**Table S21:** Canada 2019: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Alternative Measures

<i>Dependent variable:</i>			
	Conservative	NDP	Green
Ideological	1.831*** (0.0785)	0.0845 (0.0629)	0.501*** (0.0817)
Ethnocultural	-1.649*** (0.0665)	-0.235*** (0.0544)	-0.343*** (0.0707)
Constant	-0.594** (0.292)	0.798*** (0.241)	-1.188*** (0.325)

N: 6876

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic

Outcome reference level: Liberal Party. "None" and "other" are not included. Observations for Quebec are excluded.



### S3.4.2 Quebec

**Table S22:** Quebec 1997: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Alternative Measures

<i>Dependent variable:</i>			
	Bloc	Prog. Conservative	NDP
Ideological	-1.413*** (0.244)	-0.239 (0.206)	-0.388 (0.412)
Ethnocultural	0.494** (0.201)	0.447*** (0.166)	0.515 (0.388)
Constant	2.773*** (1.024)	-0.498 (0.885)	-1.355 (1.802)

N: 608

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic

Outcome reference level: Liberal Party. "None" and "other" are not included.

**Table S23:** Quebec 2008: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Alternative Measures

<i>Dependent variable:</i>				
	Bloc	Conservative	NDP	Green
Ideological	-0.909*** (0.252)	0.456* (0.237)	-0.973*** (0.293)	-0.348 (0.490)
Ethnocultural	1.204*** (0.275)	-0.396* (0.230)	0.363 (0.285)	-0.151 (0.479)
Constant	1.572 (1.185)	-2.831** (1.160)	-1.316 (1.291)	-19.47 (3,165)

N: 466

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic

Outcome reference level: Liberal Party. "None" and "other" are not included.

**Table S24:** Quebec 2011: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Alternative Measures

<i>Dependent variable:</i>				
	Bloc	Conservative	NDP	Green
Ideological	-0.494** (0.197)	0.515** (0.206)	-0.174 (0.168)	-0.530 (0.540)
Ethnocultural	0.849*** (0.208)	-0.567*** (0.199)	0.234 (0.160)	-0.799 (0.543)
Constant	3.174*** (0.956)	-0.548 (1.037)	2.185*** (0.841)	-1.106 (2.139)

N: 752

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic

Outcome reference level: Liberal Party. "None" and "other" are not included.

**Table S25:** Quebec 2015: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Alternative Measures

<i>Dependent variable:</i>				
	Bloc	Conservative	NDP	Green
Ideological	-0.174* (0.101)	0.601*** (0.108)	-0.313*** (0.0862)	0.297 (0.243)
Ethnocultural	0.297*** (0.114)	-0.665*** (0.118)	0.275*** (0.0950)	-0.447* (0.256)
Constant	-0.144 (0.704)	-1.470** (0.611)	0.657 (0.426)	-1.222 (1.076)

N: 1707

*Notes:* \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic

Outcome reference level: Liberal Party. "None" and "other" are not included.

**Table S26:** Quebec 2019: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Alternative Measures

<i>Dependent variable:</i>				
	Bloc	Conservative	NDP	Green
Ideological	0.301** (0.117)	0.644*** (0.139)	0.125 (0.129)	0.207 (0.198)
Ethnocultural	1.582*** (0.162)	0.475*** (0.181)	0.583*** (0.172)	1.198*** (0.248)
Constant	-0.464 (0.721)	-3.126*** (0.800)	0.621 (0.708)	-3.147** (1.324)
N: 1334				

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic

Outcome reference level: Liberal Party. "None" and "other" are not included.

### S3.5 Multinomial Regressions with Controls for Region

In this section, we run the same regression models as in the main analysis, but with controls for region in Canada outside Quebec. The regions are Ontario, the West and the Atlantic.

**Table S27:** Canada 1993: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Region

VARIABLES	(1) Liberal	(2) Conservative	(3) NDP	(4) none	(5) other	(6) Reform
Ideological		0.257*** (0.0891)	-0.283** (0.114)	-0.509 (0.612)	-0.249* (0.138)	0.429*** (0.0803)
Ethnocultural		-0.351*** (0.0891)	-0.129 (0.109)	0.378 (0.610)	-0.195 (0.133)	-0.753*** (0.0795)
Constant		0.0173 (0.283)	-3.063*** (0.480)	-19.89 (1,858)	-2.650*** (0.514)	-0.0287 (0.264)

N: 2021

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic, region

Outcome reference level: Liberal Party.

Observations for Quebec are excluded.

**Table S28:** Canada 1997: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Region

VARIABLES	(1) Liberal	(2) Conservative	(3) NDP	(4) none	(5) other	(6) Reform
Ideological		0.147** (0.0692)	-0.301*** (0.0798)	0.852 (0.718)	-0.0105 (0.148)	0.364*** (0.0647)
Ethnocultural		-0.0161 (0.0728)	-0.131* (0.0781)	-1.551 (1.014)	-0.516*** (0.143)	-0.249*** (0.0660)
Constant		0.794** (0.343)	-2.490*** (0.466)	-41.12 (2,769)	-1.920** (0.798)	0.187 (0.341)

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic, region

Outcome reference level: Liberal Party.

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Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic, region

Outcome reference level: Liberal Party

**Table S29:** Canada 2006: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Region

VARIABLES	(1) Liberal	(2) Conservative	(3) Green	(4) NDP	(5) none	(6) other
Ideological		0.776*** (0.133)	-0.00505 (0.210)	-0.153 (0.135)	14.57 (1,060)	0.588 (0.368)
Ethnocultural		-1.110*** (0.151)	-0.518** (0.229)	-0.164 (0.152)	-11.80 (1,727)	-0.775** (0.384)
Constant		3.554*** (0.605)	-0.656 (0.975)	0.697 (0.640)	-69.73 (37,975)	-0.437 (1.357)

N: 891

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic, region

Outcome reference level: Liberal Party.

Observations for Quebec are excluded.

**Table S30:** Canada 2008: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Region

VARIABLES	(1) Liberal	(2) Conservative	(3) Green	(4) NDP	(5) other
Ideological		0.928*** (0.120)	0.303* (0.155)	0.0799 (0.116)	0.770** (0.367)
Ethnocultural		-0.802*** (0.112)	-0.527*** (0.150)	-0.194* (0.115)	-0.859** (0.348)
Constant		3.462*** (0.470)	-0.483 (0.682)	1.102** (0.494)	-1.399 (1.588)

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic, region

Outcome reference level: Liberal Party.



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Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic, region

Outcome reference level: Liberal Party

**Table S31:** Canada 2011: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Region

VARIABLES	(1) Liberal	(2) Conservative	(3) Green	(4) NDP	(5) none	(6) other
Ideological		1.069*** (0.108)	0.181 (0.177)	0.0827 (0.101)	38.84 (642.0)	0.787 (0.503)
Ethnocultural		-0.736*** (0.0995)	-0.0826 (0.171)	-0.125 (0.0968)	0.138 (732.8)	-1.057** (0.490)
Constant		3.151*** (0.457)	-0.261 (0.788)	0.480 (0.443)	-69.58 (3,303)	-14.89 (1,500)

N: 1993

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic, region

Outcome reference level: Liberal Party.

Observations for Quebec are excluded.

**Table S32:** Canada 2015: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Region

VARIABLES	(1) Liberal	(2) Conservative	(3) Green	(4) NDP	(5) none	(6) other
Ideological		1.237*** (0.0711)	0.433*** (0.103)	-0.0459 (0.0600)	0.718** (0.308)	0.779*** (0.282)
Ethnocultural		-1.144*** (0.0689)	-0.542*** (0.102)	0.0107 (0.0629)	-0.134 (0.336)	-0.962*** (0.291)
Constant		-241.2*** (0.422)	-16.57*** (0.485)	-244.5*** (0.349)	519.5*** (1.444)	521.6*** (2.591)

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic, region

Outcome reference level: Liberal Party.

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Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic, region

Outcome reference level: Liberal Party

**Table S33:** Canada 2019: Multinomial Regression of Vote Choice on Ideological and Ethnocultural Affect, Controlling for Region

VARIABLES	(1) Liberal	(2) Conservative	(3) Green	(4) NDP	(5) none	(6) other	(7) PPC
Ideological		1.892*** (0.0781)	0.500*** (0.0812)	0.0404 (0.0625)	1.901*** (0.462)	0.677*** (0.220)	1.508*** (0.145)
Ethnocultural		-1.675*** (0.0658)	-0.339*** (0.0699)	-0.206*** (0.0539)	-0.0283 (0.410)	-0.719*** (0.191)	-1.325*** (0.125)
Constant		0.531** (0.246)	-1.420*** (0.289)	0.114 (0.214)	-7.391*** (1.828)	-5.718*** (1.257)	-0.987** (0.445)

N: 6876

Notes: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

The ideological affect and ethnocultural affect variables are standardized. Controls: do more for Quebec, Left-Right ideological position, PID, french, income, female, age, non-European, university, catholic, region

Outcome reference level: Liberal Party.  
Observations for Quebec are excluded.